

Further on the type series and nomenclature of the Isabelline Shrike *Lanius isabellinus*

by David Pearson, Lars Svensson & Sylke Frahnert

Received 15 May 2012

SUMMARY.—The lectotype of *Lanius isabellinus* at the Museum für Naturkunde, Berlin, has been considered to represent the race breeding in Mongolia rather than that of the Tarim Basin region of western China, meaning that the name *speculigerus* Taczanowski would become a junior synonym. However, questions have been raised concerning this specimen, in particular regarding the small size of the white primary patch and the ‘atypical’ narrow frontal extension to the black face mask. Here we describe three further specimens from the type series (two males, one female) recently relocated in the Berlin collection. The three type series males (including the lectotype) vary in face markings and wing patch, but all have the dark primaries associated with *speculigerus* and all can be closely matched by birds from the Mongolian breeding grounds. The mask details and wing patch size of the lectotype fall within the normal range of variability of the Mongolian race. One of the other males is a very close match for a syntype of *speculigerus* held in Berlin. In wing length and wing / tail ratio the type specimens accord with the Mongolian rather than the Tarim Basin race. Plumage and structure therefore confirm that *isabellinus* is the correct name for the former, and that *arenarius* Blyth should be used for the latter.

Isabelline Shrike *L. isabellinus* was described by Hemprich & Ehrenberg (1833) from specimens collected near Gumfude (= Al Qunfudhah), western Arabia, between 6 February and 4 March 1825. Several taxa have since been treated as races of this species: *speculigerus* Taczanowski, 1874, *phoenicuroides* Schalow, 1875, *tsaidamensis* Stegmann, 1930, and *arenarius* Blyth, 1846.

Stegmann (1930) accepted four races within *L. isabellinus*, namely *isabellinus*, *phoenicuroides*, *speculigerus* and *tsaidamensis*, a treatment followed by others such as Olivier (1945), Lefranc & Worfolk (1997), Panov (1996) and Cramp & Perrins (1997); also by Vaurie (1959), although he placed the ‘isabelline’ races as a subgroup within a broad species *L. collurio* (Red-backed Shrike). The races *phoenicuroides* and *speculigerus*, breeding in Kazakhstan and Mongolia respectively, undertake long migrations to Africa and Arabia. Both are characterised by dark flight feathers, a bold black face mask and prominent white wing speculum in the male, and by pronounced sexual dimorphism. But whereas male *phoenicuroides* has a chestnut crown contrasting with a darker brown back, a conspicuous white supercilium and largely white underparts, male *speculigerus* has more uniform isabelline-grey or sandy isabelline crown and upperparts, a buffish-tinged supercilium and buff-washed underparts. (We are aware of certain variation, with some males having a somewhat rufous-tinged crown, although the general upperparts coloration is still rather uniform and paler than in *phoenicuroides*.)

The race regarded as nominate *isabellinus* by the above authors breeds in the Tarim Basin region of Xinjiang (western China) and has a shorter migration, wintering from southern Iran to north-west India. It resembles *speculigerus* in general coloration, with uniform sandy isabelline upperparts, a poorly marked supercilium and sandy-buff underparts, but

has pale flight feathers, typically a small or invisible white wing patch, and a duller face mask, poorly developed in front of the eye, and it exhibits less sexual dimorphism. Race *tsaidamensis*, which breeds at higher altitudes in the Tsaidam depression, Qinghai (west-central China) is similar but larger, and shows a large white wing patch (see Panov 2009).

Russian authors such as Korelov (1970), Stepanyan (1990), Kryukov (1995), Panov (1996, 2009) and Koblik *et al.* (2006) treated *phoenicuroides* as a full species, leaving just the three isabelline races under *L. isabellinus*. It is these isabelline races that we are concerned with here.

During their study of moult in *L. isabellinus* Stresemann & Stresemann (1972) recognised five races. They reported that most birds wintering in Africa and Arabia moulted post-migration, while those wintering in India moulted beforehand, in July–September. In the first group they included *phoenicuroides*, *speculigerus* and nominate *isabellinus*; in the second, birds for which they used the name *arenarius*, and *tsaidamensis*. They examined a male at the Museum für Naturkunde in Berlin (ZMB) from Hemprich & Ehrenberg's type series and designated this the *L. isabellinus* lectotype. They considered that representatives of this race wintered in Africa, but could not identify the precise winter quarters of *speculigerus*. Nor were they certain as to the breeding origin of nominate *isabellinus vis-à-vis speculigerus*.

The name change

One of us (Pearson 1979) compared African wintering specimens at the Natural History Museum, Tring (BMNH), labelled *L. i. isabellinus*, with a series of male *speculigerus* from the breeding area, kindly loaned from the Zoological Institute, St. Petersburg, by V. Loskot, and concluded that these represented the same race. Thus, *contra* Stresemann & Stresemann (1972) there appeared to be just one dark-primaried form (other than *phoenicuroides*) breeding in Central Asia and migrating to Africa. Arabian wintering specimens at Tring resembled those from Africa while, in contrast, the different moult strategy and duller, paler appearance of Indian wintering specimens was striking. Reference to the type description, and examination of an excellent photograph of the ZMB lectotype provided by SF, led to the conclusion that the name *isabellinus* must indeed apply to the dark-primaried African wintering race, meaning that *speculigerus* became a junior synonym (Pearson 2000). Stresemann's name *arenarius* was resurrected for the Xinjiang breeding race.

Panov (2009) questioned this view. He expressed doubts that the *isabellinus* lectotype represents a true Mongolian *speculigerus*. He considered that the extension of the black loreal band narrowly across the base of the bill is atypical, noting that this pattern is frequent in birds near the zone of hybridisation between *L. isabellinus* and *L. collurio* on the Chuya Steppe near the Mongolian / Russian border but absent in the *speculigerus terra typica* of Transbaikalia, and implied that its presence in the lectotype could indicate introgression by *collurio* genes. He also considered the white speculum of this specimen to be too small for *speculigerus*. We respond here to these points, give measurements of *L. isabellinus* museum specimens from various breeding and non-breeding areas, and describe three *isabellinus* paralectotypes at ZMB.

Analysis of the type series

In the species description, Hemprich & Ehrenberg gave as locality 'prope Gumfudam Arabiae in Wechabitarum montibus' (near Gumfude [modern-day Al Qunfudhah, Saudi Arabia] in the Asir Mountains in Arabia). They listed *Lanius isabellinus* for 'Arabia meridionali', which means that their specimens were from south Arabia only, and would have been included in the tenth shipment from Alexandria in November 1825 that reached

Berlin in April 1826. In the shipment list there is an entry by Lichtenstein for '*Lanius ruficaudus*' (his name as well as Hemprich's at that time for *L. isabellinus*) nos. 387–395 (six males, four females), locality: 'Abessinien' (the locality is erroneous) (ZMB archives, Zool. Mus., Sign. SI, Hemprich & Ehrenberg III: 191). The ZMB collection catalogue, as well as Lichtenstein (1854), mentions four specimens of *Lanius ruficaudus* from Gumfude / Arabia, which implies that the other six specimens were given away shortly after 1826. The four specimens now in Berlin (ZMB 1887–90) as well as those given away all belong to the type series. Hemprich and Ehrenberg arrived in Gumfude on 6 February 1825 and left on 4 March 1825 (Stresemann 1954). During that time both of them made trips into the Asir Mountains as Stresemann described. Since no exact collecting date is recorded for each specimen, the correct date to give is this timespan of nearly one month.

When Stresemann & Stresemann (1972) defined a lectotype for *Lanius isabellinus* they had only two specimens available, a male and a female. They gave a type label to the male, ZMB 1887. The female must have been ZMB 1888, which Meise (c.1950), in a card catalogue of the types of the ornithological collection in Berlin, had given as available, but 'not typical'. In 2010 we located the two missing type specimens in the Berlin collection, both males (ZMB 1889–90). We do not know why these had been unavailable to Meise and the Stresemanns in the mid-20th century, but this was perhaps a result of the disruption of the collection by World War II damage. We are sure, however, that the two newly discovered individuals certainly belong to the type series as they possess the original museum labels. We have been unable to locate any of the remaining five or six type specimens, which must have been given away to other museums. We briefly describe below the four type specimens now present in the Berlin collection.

ZMB 1887. *L. isabellinus* lectotype. Male, 6 February–4 March 1825, Kunfuda (= Al Qunfudhah, south-west Saudi Arabia). Upperparts pale buffy brown, tinged greyish from nape to crown, more cinnamon on uppertail-coverts. Underparts washed pinkish-buff. Blackish mask through ear-coverts, around eye, and over lores to bill, extending across base of bill as frontal band c.1 mm wide. Paler, ill-defined buffy supercilium. Remiges and larger wing-coverts blackish brown, tertials and inner greater coverts with broad sandy brown edges. Primaries 4–9 (numbered ascendently) with white bases, forming patch extending 4 mm beyond primary-coverts. Tail cinnamon-brown above, becoming slightly darker near tip, uniformly pale cinnamon below. Wing 92 mm; tail 76 mm; second primary (p2) 1 mm longer than p6. Fully moulted.

ZMB 1889. *L. isabellinus* paralectotype. Male, 6 February–4 March 1825, Kunfuda (= Al Qunfudhah, south-west Saudi Arabia). Colour of upperparts and underparts as lectotype. Blackish mask, reaching to bill but narrower on lores, with some dark grey (not black) extending to forehead. Wings blacker than in lectotype, with large white primary patch extending 12 mm beyond primary-coverts. Uppertail paler cinnamon-brown. Wing 98 mm; tail 83.5 mm; p2 shorter than p6. Fully moulted.

Legend to figures on page opposite

Figure 1. Comparison, left to right, of ZMB 1887 (*isabellinus* lectotype), ZMB 1889 (*isabellinus* paralectotype), ZMB 1990 (*isabellinus* paralectotype), ZMB 58.58 and ZMB 21886 (*speculigerus* syntype) (Lars Svensson, © Museum für Naturkunde, Berlin)

Figure 2. Head patterns of (a) ZMB 1887 (top) and ZMB 1889, and (b) AMNH 261.414 (Lars Svensson, © Museum für Naturkunde, Berlin, and American Museum of Natural History, New York)

Figure 3. Male *Lanius i. isabellinus* trapped at Narovlin, Kentiy, Mongolia, 27 June 2005 (Paul J. Leader)

Figure 4. Male *Lanius i. isabellinus*, 50 km south-west of Ulan-Ude, Transbaikalia, 30 May 2010 (Magnus Hellström)



ZMB 1890. *L. isabellinus* paralectotype. Male, 6 February–4 March 1825, Kunfuda (= Al Qunfudhah, south-west Saudi Arabia). Similar to ZMB 1889, but upperparts and crown more uniform buffy brown, and blackish mask confined to ear-coverts and spot before eye. White primary patch extends 3 mm beyond coverts. Apparently fully moulted, but inner six primaries browner than rest and presumably replaced earlier. Wing 99 mm; tail 86 mm; p2 longer than p6.

ZMB 1888. *L. isabellinus* paralectotype. Female, 6 Feb–4 Mar 1825, Kunfuda (= Al Qunfudhah, south-west Saudi Arabia). Buffy brown above, rather darker and browner than lectotype, crown uniform with back. Underparts washed pale buffy brown, unbarred. Poorly contrasting dark brown face mask. Wing feathers medium brown with pale sandy buff tertial edges but no white primary patch. Tail and uppertail-coverts as lectotype. Wing 95 mm; tail 81 mm; p2 longer than p6.

The *isabellinus* lectotype has the head and body coloration, including bold black face mask and blackish-brown primaries, typical of specimens from Mongolia and of freshly moulted spring birds from Africa. It shows no characters suggestive of *L. collurio*, and there is no indication that it is a hybrid. It is matched closely by ZMB 58.58, collected at the Dalai Nur, Inner Mongolia, China, on 23 August 1956, which has a similarly small wing patch and broad black loreal band just reaching the edge of the culmen over the forehead. The *isabellinus* paralectotype ZMB 1889, with a narrower loreal band and large wing patch, matches other examples from Africa and Mongolia, including the syntype of *speculigerus* (ZMB 21886), from the Argun River, Dauria (probably now Chita Oblast, Russia), on 26 May 1873. Fig. 1 compares the three male *isabellinus* type specimens with ZMB 58.58 and ZMB 21886.

Face mask and primary patch variations

The black face mask of male *speculigerus* is quite variable, as shown by Panov (2009: Pl. 6). A frontal band such as that in the *isabellinus* lectotype was noted in c.25% of the examples he detailed in his Table 1, admittedly more prevalent in certain breeding areas, but occurring throughout most of the range. Among museum examples, we have noted this feature in birds from Mali in January (MNHN 1966.634), Mongolia (no locality) in June (AMNH 261.414), Kergelen River, Mongolia, in July (ZMMU 55498), and from Dalai Nur, Mongolia, in August as mentioned above (for other museum acronyms see Acknowledgements). Migrants from Kazakhstan in May (BMNH 1898.9.20.624) and Kashi, Tarim Basin, in late April (BMNH 1931.7.8.362), have also shown this trait. By contrast, other Mongolian examples exhibit an incomplete mask, with little black on the lores, similar to that of *isabellinus* paralectotype ZMB 1890. Fig. 2 shows the head pattern of two of the ZMB type series males, one with a frontal band and one without, and of AMNH 261.414. Two further live examples with a black frontal band, recently photographed in Mongolia, are illustrated in Figs. 3–4.

A white wing patch appears to be present in all males from Mongolia and all spring males from Africa, but varies in size. That of the *isabellinus* lectotype is rather small, but falls within the range of birds we have examined from Mongolia (3–10 mm beyond the primary-coverts; $n = 12$) and Africa (2–10 mm; $n = 30$). Of the two male paralectotypes, one has a relatively small patch, the other a large one.

Structure

The Mongolian and Tarim Basin breeding races differ slightly in structure. Table 1 compares wing and tail measurements, and second primary length of the four birds (three

TABLE 1
Biometric comparison between the type series, breeders (A) or winterers (B) of the Mongolian race, and spring / summer birds (C) or winterers (D) of the Tarim Basin race.

	Wing (mm)	Tail (mm)	Mean T / W	no. with p2		
				>p6	=p6	<p6
Type series* (n = 4)	96.0 (92–99)	81.6 (76–86)	0.850	3		1
A (n = 13)	95.2 (92–101)	81.6 (76–87)	0.857	9	3	1
B (n = 38)	95.4 (90–102)	80.5 (75–88)	0.844	26	8	2
C (n = 17)	91.5 (89–94)	79.7 (77–83)	0.871	3	8	5
D (n = 67)	90.9 (87–95)	79.3 (75–84)	0.872	12	24	24

*As wing and tail measurements differ between the sexes by only c.1 mm (cf. Cramp & Perrins 1993) we have included the single female in the small type series.

males, one female) of the ZMB type series (taken by LS) with those of the following groups of males from various collections: A—spring / summer birds with dark primaries from east-central Asia (LS); B—winter / early spring birds with dark primaries from Africa and Arabia at BMNH (DP); C—spring / summer birds with pale primaries from Afghanistan and western Xinjiang (China) (LS); and D—winter birds with pale primaries from Pakistan and north-west India at BMNH (DP). In size and structure the type series clearly concurs with the Mongolian race.

Discussion

There is no reason to suppose that the *isabellinus* type series, collected on the wintering grounds, is from a hybrid population. The only question concerns which of two sandy isabelline races it represents, *speculigerus* from Mongolia or the pale-primaried race breeding in the Tarim Basin, Xinjiang. (We can reasonably discount *tsaidamensis* from further east in China from the argument.) The dark brown to blackish primaries of all three Berlin males place them firmly with Mongolian birds, as does the large speculum of paralectotype ZMB 1889, and the complete black loreal band of lectotype ZMB 1887 and paralectotype ZMB 1889. The loreal / forehead pattern and speculum size of the lectotype, and the incomplete mask of paralectotype ZMB 1890, may not be typical of *speculigerus* but nonetheless fall within the normal range of variation associated with this form. The longer wing and lower tail / wing ratio of the type specimens also accord with the Mongolian rather than the Tarim Basin race. Thus, plumage and structure confirm that the former should be named *isabellinus*, and *arenarius* therefore be used for the latter.

Acknowledgements

We are grateful to Robert Prÿs-Jones and Mark Adams for facilities afforded us at the Natural History Museum, Tring; other museums have been equally helpful, notably the American Museum of Natural History (AMNH), New York (Joel Cracraft, Paul Sweet), Musée Nationale d’Histoire Naturelle (MNHN), Paris (Claire Voisin), Zoological Institute, Almaty (Andrey Gavrilov), Zoological Museum, Moscow (Pavel Tomkovich, Eugeniy Koblik) and Naturhistoriska Riksmuseet, Stockholm (Göran Frisk, Ulf Johansson). At ZMB we thank Hannelore Lundsberg (ZMB) for providing archive documents and Pascal Eckhoff for technical assistance in the collection. We are very grateful to Paul Leader and Magnus Hellström for kindly providing photographs.

References:
Cramp, S. & Perrins, C. M. (eds.) 1993. *The birds of the Western Palearctic*, vol. 7. Oxford Univ. Press.

- Hemprich, F. G. & Ehrenberg, C. G. 1833. Fol. E in Ehrenberg, C. G. (ed.) *Symbolae physicae seu icones et descriptiones avium quae ex itinere per Africam Borealem et Asiam Occidentalem*. Decas Prima (& pls. Decas Secunda). Officina Academica, Berlin.
- Koblik, E. A., Red'kin, Y. A. & Arkhipov, V. Y. 2006. [Checklist of the birds of the Russian Federation]. KMK Scientific Press, Moscow. [In Russian.]
- Korelov, M. N. 1970. Family Laniidae. Pp. 364–399 in Dolgushin, I. A. & Korelov, M. N. (eds.) [*Birds of Kazakhstan*], vol. 3. Nauka of the Kazakh SSR, Alma-Ata. [In Russian.]
- Kryukov, A. P. 1995. Systematics of small Palearctic shrikes of the 'cristatus group'. Pp. 22–25 in Yosef, R. & Lohrer, F. E. (eds.) Shrikes (Laniidae) of the world: biology and conservation. *Proc. West. Found. Vert. Zool.* 6(1).
- Lefranc, N. & Worfolk, T. 1997. *Shrikes: a guide to the shrikes of the world*. Pica Press, Robertsbridge.
- Lichtenstein, [M.] H. [C.] 1854. *Nomenclator avium Musei zoologici berlinensis—Namenverzeichnis der in der zoologischen Sammlung der Königl. Universität zu Berlin aufgestellten Arten von Vögeln nach den in der neueren Systematik am meisten zur Geltung gekommenen Namen und Gattungen und ihrer Unterabtheilungen*. Königl. Akademie der Wissenschaften, Berlin.
- Olivier, G. 1944. *Monographie des pies-grieches du genre Lanius*. Rouen.
- Panov, E. N. 1996. *Die Würger der Paläarktis*. Second revised edn. Neue Brehm Bücherei, Westarp Wissenschaften, Magdeburg.
- Panov, E. N. 2009. On the nomenclature of the so-called Isabelline Shrike. *Sandgrouse* 31: 163–170.
- Pearson, D. J. 1979. The races of the Red-tailed Shrike *Lanius isabellinus* occurring in East Africa. *Scopus* 3: 74–78.
- Pearson, D. J. 2000. The races of the Isabelline Shrike *Lanius isabellinus* and their nomenclature. *Bull. Brit. Orn. Cl.* 120: 22–27.
- Stegmann, B. 1930. Über die Formen der paläarktischen Rotrück- und Rotschwanzwürger und deren taxonomischen Wert. *Orn. Monatsb.* 38: 106–118.
- Stepanyan, L. S. 1990. [*Conspectus of the ornithological fauna of the USSR*]. Nauka, Moscow. [In Russian.]
- Stresemann, E. 1954. Hemprich und Ehrenberg. Reisen zweier naturforschender Freunde im Orient geschildert in ihren Briefen aus den Jahren 1819–1826. *Abh. Dt. Akad. Wiss. Berlin, Klasse Mathem. Allgem. Naturwiss.* 1: 1–177.
- Stresemann, E. & Stresemann, V. 1972. Über die Mauser in der Gruppe *Lanius isabellinus*. *J. Orn.* 113: 60–75.
- Vaurie, C. 1959. *The birds of the Palearctic fauna. Order Passeriformes*. H. F. & G. Witherby, London.
- Addresses: David Pearson, 4 Lupin Close, Reydon, Southwold, Suffolk, UK, e-mail: dpearson@dsl.pipex.com.
Lars Svensson, Ssta Toras väg 28, S-269 77 Torekov, Sweden, e-mail: lars@lullula.se. Sylke Frahnert, Museum für Naturkunde, Leibniz-Institut für Evolutions- und Biodiversitätsforschung, Invalidenstraße 43, D-10115 Berlin, Germany, e-mail: Sylke.Frahnert@mf-n-berlin.de